

D000 13648

03/29/96 10:03

202 586 2323

DOE - NN-42

+++ V CAROTENUTO

003/003

'96-03-29 18:49

PYONGYANG-KOREA

812473

T-897 P. 03

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**Assembly Sequence**

714313

- 1) **Attach Boiler Adapter Kit (BAK) to boiler flange using 11 clamps (see detail "A").**
- 2) **Attach first Straight Section (STR) to BAK with v-band and use SS screws/nuts to tighten.**
- 3) **Place square Support Plate (part of PLS) on support braces (provided by DPRK). Place Adjustable Section (ADJ) through the square Support Plate (see detail "C") and slip end with no flange into the straight section installed in step (2) (see detail "B"). Join STR and ADJ with insulated rope, v-band**

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M43C

SECTION

Joint  
Detail "D"

V band

CFL

PLS

Roof

THM square  
30" minimum  
roof opening

Joint  
Detail "C"

PLS + 3/8" bolts, washers  
lock washers, nuts

Adjustable  
expansion  
section

Insulated rope  
V-band

Joint  
Detail "B"

straight section

Joint  
Detail "A"

V band

22 BAK  
clamps

boiler

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DOE OFFICE OF CLASSIFICATION  
T. Sieler DR DATE: 2/2/2004  
T. Sieler

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NUCLEAR INFORMATION

04/01/96 08:08 202 586 2323  
'96-03-30 18:12 PYONGYANG-KOREA

DOE - NN-42  
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004/004

T-898 P.01

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TRANSFER FOR DIRECT REPLY - DOE

CHRON

U.S. Spent Fuel Team, Saturday 3/30/96

To: Cherie Fitzgerald, U.S. Department of Energy, NN-42

Fax: 1-202-586-2323

Phone: 1-202-586-8525

From: Dick Libby, DOE On-Site Monitor

Fax: 850-2-381-2473

Phone: 850-2-381-4423

### Daily Action Item List

Testing of Work Stations. The major work activity was continued debugging of Conditioning Station 2. During the day the Herculite on the floor (with the exception of the north side) in the Spent Fuel Pool Area was replaced with fresh material. During the welding and grinding operations to set up the workstations, many holes were burned into the old material. Now that essentially all assembly operations have been completed, contamination can be controlled better with new material.

CONTAIN /  
CONTROLLED  
FORMATION

D00013651

04/01/96 08:07 202 588 2323  
'96-04-01 09:24 PYONGYANG-KOREA

DOE - NN-42  
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003/004

T-900-P.01

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9M145

D00013652

04/02/96 09:58 202 586 2323  
'96-04-02 19:22 PYONGYANG-KOREA

DOE - NN-42  
812473

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002/002

T-907 P.01

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CHHON

*Mike*

US SPENT FUEL TEAM, TUESDAY 4/2/96

To: Cherie Fitzgerald, US Department of Energy, NN-42 Fax 202-586-2323

From: Thomas Grim, US Department of Energy Site Monitor Fax 850-2-381-2473

4/03/86 08:23  
96-04-03 19:13

202 586 2323  
PYONGYANG-KOREA

DOE - NN-42  
812473

+++ V CARV  
T-911 P.01

000013653

CHRON

7147

# US SPENT FUEL TEAM, WEDNESDAY 4/3/96

To: Cherie Fitzgerald, US Department of Energy, NN-42 Fax 202-586-2323  
From: Thomas Grim, US Department of Energy Site Monitor Fax 850-2-381-2473

Today I met with Chief Engineer Li concerning the following subjects

**Fuel Canning** Procedures have arrived with Mr. Viebrock. Tomorrow a copy will be given to Chief Engineer Li.  
**Boiler Installation** A building sketch was ready today. The designers explained to me their placement of the boiler and the location of the stack was agreed on. Chief Engineer Li plans to have the building ready for the boiler by 4/10/96.  
**Work Hours** Chief Engineer Li has agreed to a 12 hour shift tomorrow. Work hours will be from 8:00 AM to 8:00 PM.  
**Water Treatment** Chief Engineer Li is concerned that the coolers are not appropriate for contaminated water, because the ruptured freeze plugs leaked contamination. After explaining that the protective low flow cut off circuit has been repaired he agrees that the coolers can be run after the temperature gets warmer (55-60 F).

## Daily Action Items

- Improve vacuum on work station #3 (complete)
- Build wooden false floors (complete)
- Reactivate and test cooler A low flow warning (complete)
- Repaired leaks and improve hot water system (complete)
- Test water treatment system low flow protection (complete)
- Power was interrupted for three hours making work more difficult, but work continued because neither crane was needed. The team worked 8.5 hours.
- Mr. Viebrock arrived safely today.
- The following some of the items which must be completed prior to canning reviewed by NAC Spent Fuel Team members.
- received and installed.

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UNCLASSIFIED  
CLASSIFICATION HS-93  
DATE 2/2/2009

000013655

04/05/96 08:16 202 586 2323  
96-04-05 12:14 PYONGYANG-KOREA

DOE - NN-42  
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V CAROTENUTO

002/003

T-923 P.01

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CHRON

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04/05/96 08:16 202 586 2323  
'96-04-05 18:40 PYONGYANG-KOREA

DOE - NN-42  
812473

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003/003

T-926 P.01

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TRANSFER FOR DIRECT REPLY - DOE

**CHRON**

91149

**US SPENT FUEL TEAM, FRIDAY 4/5/96**

~~TO: C-1A B-1B-1C-1D-1E-1F-1G-1H-1I-1J-1K-1L-1M-1N-1O-1P-1Q-1R-1S-1T-1U-1V-1W-1X-1Y-1Z-1AA-1AB-1AC-1AD-1AE-1AF-1AG-1AH-1AI-1AJ-1AK-1AL-1AM-1AN-1AO-1AP-1AQ-1AR-1AS-1AT-1AU-1AV-1AW-1AX-1AY-1AZ-1BA-1BB-1BC-1BD-1BE-1BF-1BG-1BH-1BI-1BJ-1BK-1BL-1BM-1BN-1BO-1BP-1BQ-1BR-1BS-1BT-1BU-1BV-1BW-1BX-1BY-1BZ-1CA-1CB-1CC-1CD-1CE-1CF-1CG-1CH-1CI-1CJ-1CK-1CL-1CM-1CN-1CO-1CP-1CQ-1CR-1CS-1CT-1CU-1CV-1CW-1CX-1CY-1CZ-1DA-1DB-1DC-1DD-1DE-1DF-1DG-1DH-1DI-1DJ-1DK-1DL-1DM-1DN-1DO-1DP-1DQ-1DR-1DS-1DT-1DU-1DV-1DW-1DX-1DY-1DZ-1EA-1EB-1EC-1ED-1EE-1EF-1EG-1EH-1EI-1EJ-1EK-1EL-1EM-1EN-1EO-1EP-1EQ-1ER-1ES-1ET-1EU-1EV-1EW-1EX-1EY-1EZ-1FA-1FB-1FC-1FD-1FE-1FF-1FG-1FH-1FI-1FJ-1FK-1FL-1FM-1FN-1FO-1FP-1FQ-1FR-1FS-1FT-1FU-1FV-1FW-1FX-1FY-1FZ-1GA-1GB-1GC-1GD-1GE-1GF-1GG-1GH-1GI-1GJ-1GK-1GL-1GM-1GN-1GO-1GP-1GQ-1GR-1GS-1GT-1GU-1GV-1GW-1GX-1GY-1GZ-1HA-1HB-1HC-1HD-1HE-1HF-1HG-1HH-1HI-1HJ-1HK-1HL-1HM-1HN-1HO-1HP-1HQ-1HR-1HS-1HT-1HU-1HV-1HW-1HX-1HY-1HZ-1IA-1IB-1IC-1ID-1IE-1IF-1IG-1IH-1II-1IJ-1IK-1IL-1IM-1IN-1IO-1IP-1IQ-1IR-1IS-1IT-1IU-1IV-1IW-1IX-1IY-1IZ-1JA-1JB-1JC-1JD-1JE-1JF-1JG-1JH-1JI-1JJ-1JK-1JL-1JM-1JN-1JO-1JP-1JQ-1JR-1JS-1JT-1JU-1JV-1JW-1JX-1JY-1JZ-1KA-1KB-1KC-1KD-1KE-1KF-1KG-1KH-1KI-1KJ-1KK-1KL-1KM-1KN-1KO-1KP-1KQ-1KR-1KS-1KT-1KU-1KV-1KW-1KX-1KY-1KZ-1LA-1LB-1LC-1LD-1LE-1LF-1LG-1LH-1LI-1LJ-1LK-1LL-1LM-1LN-1LO-1LP-1LQ-1LR-1LS-1LT-1LU-1LV-1LW-1LX-1LY-1LZ-1MA-1MB-1MC-1MD-1ME-1MF-1MG-1MH-1MI-1MJ-1MK-1ML-1MM-1MN-1MO-1MP-1MQ-1MR-1MS-1MT-1MU-1MV-1MW-1MX-1MY-1MZ-1NA-1NB-1NC-1ND-1NE-1NF-1NG-1NH-1NI-1NJ-1NK-1NL-1NM-1NN-1NO-1NP-1NQ-1NR-1NS-1NT-1NU-1NV-1NW-1NX-1NY-1NZ-1OA-1OB-1OC-1OD-1OE-1OF-1OG-1OH-1OI-1OJ-1OK-1OL-1OM-1ON-1OO-1OP-1OQ-1OR-1OS-1OT-1OU-1OV-1OW-1OX-1OY-1OZ-1PA-1PB-1PC-1PD-1PE-1PF-1PG-1PH-1PI-1PJ-1PK-1PL-1PM-1PN-1PO-1PP-1PQ-1PR-1PS-1PT-1PU-1PV-1PW-1PX-1PY-1PZ-1QA-1QB-1QC-1QD-1QE-1QF-1QG-1QH-1QI-1QJ-1QK-1QL-1QM-1QN-1QO-1QP-1QQ-1QR-1QS-1QT-1QU-1QV-1QW-1QX-1QY-1QZ-1RA-1RB-1RC-1RD-1RE-1RF-1RG-1RH-1RI-1RJ-1RK-1RL-1RM-1RN-1RO-1RP-1RQ-1RR-1RS-1RT-1RU-1RV-1RW-1RX-1RY-1RZ-1SA-1SB-1SC-1SD-1SE-1SF-1SG-1SH-1SI-1SJ-1SK-1SL-1SM-1SN-1SO-1SP-1SQ-1SR-1SS-1ST-1SU-1SV-1SW-1SX-1SY-1SZ-1TA-1TB-1TC-1TD-1TE-1TF-1TG-1TH-1TI-1TJ-1TK-1TL-1TM-1TN-1TO-1TP-1TQ-1TR-1TS-1TT-1TU-1TV-1TW-1TX-1TY-1TZ-1UA-1UB-1UC-1UD-1UE-1UF-1UG-1UH-1UI-1UJ-1UK-1UL-1UM-1UN-1UO-1UP-1UQ-1UR-1US-1UT-1UU-1UV-1UW-1UX-1UY-1UZ-1VA-1VB-1VC-1VD-1VE-1VF-1VG-1VH-1VI-1VJ-1VK-1VL-1VM-1VN-1VO-1VP-1VQ-1VR-1VS-1VT-1VU-1VV-1VW-1VX-1VY-1VZ-1WA-1WB-1WC-1WD-1WE-1WF-1WG-1WH-1WI-1WJ-1WK-1WL-1WM-1WN-1WO-1WP-1WQ-1WR-1WS-1WT-1WU-1WV-1WW-1WX-1WY-1WZ-1XA-1XB-1XC-1XD-1XE-1XF-1XG-1XH-1XI-1XJ-1XK-1XL-1XM-1XN-1XO-1XP-1XQ-1XR-1XS-1XT-1XU-1XV-1XW-1XX-1XY-1XZ-1YA-1YB-1YC-1YD-1YE-1YF-1YG-1YH-1YI-1YJ-1YK-1YL-1YM-1YN-1YO-1YP-1YQ-1YR-1YS-1YT-1YU-1YV-1YW-1YX-1YY-1YZ-1ZA-1ZB-1ZC-1ZD-1ZE-1ZF-1ZG-1ZH-1ZI-1ZJ-1ZK-1ZL-1ZM-1ZN-1ZO-1ZP-1ZQ-1ZR-1ZS-1ZT-1ZU-1ZV-1ZW-1ZX-1ZY-1ZZ-1AA-1AB-1AC-1AD-1AE-1AF-1AG-1AH-1AI-1AJ-1AK-1AL-1AM-1AN-1AO-1AP-1AQ-1AR-1AS-1AT-1AU-1AV-1AW-1AX-1AY-1AZ-1BA-1BB-1BC-1BD-1BE-1BF-1BG-1BH-1BI-1BJ-1BK-1BL-1BM-1BN-1BO-1BP-1BQ-1BR-1BS-1BT-1BU-1BV-1BW-1BX-1BY-1BZ-1CA-1CB-1CC-1CD-1CE-1CF-1CG-1CH-1CI-1CJ-1CK-1CL-1CM-1CN-1CO-1CP-1CQ-1CR-1CS-1CT-1CU-1CV-1CW-1CX-1CY-1CZ-1DA-1DB-1DC-1DD-1DE-1DF-1DG-1DH-1DI-1DJ-1DK-1DL-1DM-1DN-1DO-1DP-1DQ-1DR-1DS-1DT-1DU-1DV-1DW-1DX-1DY-1DZ-1EA-1EB-1EC-1ED-1EE-1EF-1EG-1EH-1EI-1EJ-1EK-1EL-1EM-1EN-1EO-1EP-1EQ-1ER-1ES-1ET-1EU-1EV-1EW-1EX-1EY-1EZ-1FA-1FB-1FC-1FD-1FE-1FF-1FG-1FH-1FI-1FJ-1FK-1FL-1FM-1FN-1FO-1FP-1FQ-1FR-1FS-1FT-1FU-1FV-1FW-1FX-1FY-1FZ-1GA-1GB-1GC-1GD-1GE-1GF-1GG-1GH-1GI-1GJ-1GK-1GL-1GM-1GN-1GO-1GP-1GQ-1GR-1GS-1GT-1GU-1GV-1GW-1GX-1GY-1GZ-1HA-1HB-1HC-1HD-1HE-1HF-1HG-1HH-1HI-1HJ-1HK-1HL-1HM-1HN-1HO-1HP-1HQ-1HR-1HS-1HT-1HU-1HV-1HW-1HX-1HY-1HZ-1IA-1IB-1IC-1ID-1IE-1IF-1IG-1IH-1II-1IJ-1IK-1IL-1IM-1IN-1IO-1IP-1IQ-1IR-1IS-1IT-1IU-1IV-1IW-1IX-1IY-1IZ-1JA-1JB-1JC-1JD-1JE-1JF-1JG-1JH-1JI-1JJ-1JK-1JL-1JM-1JN-1JO-1JP-1JQ-1JR-1JS-1JT-1JU-1JV-1JW-1JX-1JY-1JZ-1KA-1KB-1KC-1KD-1KE-1KF-1KG-1KH-1KI-1KJ-1KK-1KL-1KM-1KN-1KO-1KP-1KQ-1KR-1KS-1KT-1KU-1KV-1KW-1KX-1KY-1KZ-1LA-1LB-1LC-1LD-1LE-1LF-1LG-1LH-1LI-1LJ-1LK-1LM-1LN-1LO-1LP-1LQ-1LR-1LS-1LT-1LU-1LV-1LW-1LX-1LY-1LZ-1MA-1MB-1MC-1MD-1ME-1MF-1MG-1MH-1MI-1MJ-1MK-1ML-1MM-1MN-1MO-1MP-1MQ-1MR-1MS-1MT-1MU-1MV-1MW-1MX-1MY-1MZ-1NA-1NB-1NC-1ND-1NE-1NF-1NG-1NH-1NI-1NJ-1NK-1NL-1NM-1NN-1NO-1NP-1NQ-1NR-1NS-1NT-1NU-1NV-1NW-1NX-1NY-1NZ-1OA-1OB-1OC-1OD-1OE-1OF-1OG-1OH-1OI-1OJ-1OK-1OL-1OM-1ON-1OO-1OP-1OQ-1OR-1OS-1OT-1OU-1OV-1OW-1OX-1OY-1OZ-1PA-1PB-1PC-1PD-1PE-1PF-1PG-1PH-1PI-1PJ-1PK-1PL-1PM-1PN-1PO-1PP-1PQ-1PR-1PS-1PT-1PU-1PV-1PW-1PX-1PY-1PZ-1QA-1QB-1QC-1QD-1QE-1QF-1QG-1QH-1QI-1QJ-1QK-1QL-1QM-1QN-1QO-1QP-1QQ-1QR-1QS-1QT-1QU-1QV-1QW-1QX-1QY-1QZ-1RA-1RB-1RC-1RD-1RE-1RF-1RG-1RH-1RI-1RJ-1RK-1RL-1RM-1RN-1RO-1RP-1RQ-1RR-1RS-1RT-1RU-1RV-1RW-1RX-1RY-1RZ-1SA-1SB-1SC-1SD-1SE-1SF-1SG-1SH-1SI-1SJ-1SK-1SL-1SM-1SN-1SO-1SP-1SQ-1SR-1SS-1ST-1SU-1SV-1SW-1SX-1SY-1SZ-1TA-1TB-1TC-1TD-1TE-1TF-1TG-1TH-1TI-1TJ-1TK-1TL-1TM-1TN-1TO-1TP-1TQ-1TR-1TS-1TT-1TU-1TV-1TW-1TX-1TY-1TZ-1UA-1UB-1UC-1UD-1UE-1UF-1UG-1UH-1UI-1UJ-1UK-1UL-1UM-1UN-1UO-1UP-1UQ-1UR-1US-1UT-1UU-1UV-1UW-1UX-1UY-1UZ-1VA-1VB-1VC-1VD-1VE-1VF-1VG-1VH-1VI-1VJ-1VK-1VL-1VM-1VN-1VO-1VP-1VQ-1VR-1VS-1VT-1VU-1VV-1VW-1VX-1VY-1VZ-1WA-1WB-1WC-1WD-1WE-1WF-1WG-1WH-1WI-1WJ-1WK-1WL-1WM-1WN-1WO-1WP-1WQ-1WR-1WS-1WT-1WU-1WV-1WW-1WX-1WY-1WZ-1XA-1XB-1XC-1XD-1XE-1XF-1XG-1XH-1XI-1XJ-1XK-1XL-1XM-1XN-1XO-1XP-1XQ-1XR-1XS-1XT-1XU-1XV-1XW-1XX-1XY-1XZ-1YA-1YB-1YC-1YD-1YE-1YF-1YG-1YH-1YI-1YJ-1YK-1YL-1YM-1YN-1YO-1YP-1YQ-1YR-1YS-1YT-1YU-1YV-1YW-1YX-1YY-1YZ-1ZA-1ZB-1ZC-1ZD-1ZE-1ZF-1ZG-1ZH-1ZI-1ZJ-1ZK-1ZL-1ZM-1ZN-1ZO-1ZP-1ZQ-1ZR-1ZS-1ZT-1ZU-1ZV-1ZW-1ZX-1ZY-1ZZ~~



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CHRON

## US SPENT FUEL TEAM, SATURDAY 4/6/96

To: Cherie Fitzgerald, US Department of Energy, NN-42 Fax 202-586-2323

From: Thomas Grim, US Department of Energy Site Monitor Fax 850-2-381-2473

**Fuel Canning** All four work stations can now be used for canning. Two stations have out of order moisture indicators, but they can be used for canning. Five moisture indicators were sent, three have malfunctioned, and seven more have been ordered.

**Boiler** Yesterday, the DPRK moved the boiler into the building without any warning. The building roof and floor are not complete. The boiler is out of the box and on the sand. All four walls to the building have been built, not three (with roof and floor) to allow the boiler to be installed prior to completing the last wall, like the WTS building. Mr. Li explained he will complete the floor, roof, and plaster walls quickly, but this afternoon it is raining on an uncovered boiler. DPRK is going to cover with a tent and herculite.

**Water Treatment** The DPRK removed the fan belt from the #2 CenTec diesel (John Deere 4039). The replacement belts are too thin and too long. The original is in poor to fair condition. It is oil soaked. It was cleaned and reinstalled and the generator is not running hot, but a replacement is needed. The outer width of the original is 5/8", but probably started at 11/16". The two replacement belts are marked "John Deere T26755-DF 194.7" and were in a bag marked "Belt Set, Quantity 1, Part Number 224263". Their outer width is 17/32". I will bring these back to the US and try to exchange at a dealer, but a replacement should be sent with someone. The "Quantity 1" leads me to believe they are for a double belt system (shown in the manual), not the single belt system that all four generators have. I could find no part number or spec. for the proper belt. We have looked for the cooler freeze plugs, but can't find them. If someone knows where they are or has seen them here, give us a hint and we will try again, if not send some. They have 1/2" male pipe threads. The WTS coolers have a straight plug, but the temp. cooler has a 90 degree plug. We have fittings for either, but two of each would be nice.

### Daily Action Items

- NAC procedure finalization (hope to complete by end of Sunday)
- Install pressure washer reservoir (complete)

DPRK has asked that we confirm Chris Miller's arrival in the DPRK on April 9.

The team worked 11 hours. The power was out for the last four hours of work, but work continued in the shadows.

The schedule for the next three weeks is attached. We will be training two crews of DPRK operators, not all at once. The training will involve actual fuel canning. I feel it is important that we get them involved from the beginning rather than their starting to see and

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UNCLASSIFIED  
CLASSIFICATION HS-93  
DATE 2/2/2009  
Miller

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151A

## US SPENT FUEL TEAM, MONDAY 4/8/96

To: Cherie Fitzgerald, US Department of Energy, NN-42 Fax 202-586-2323

From: Thomas Grim, US DOE Site Monitor Fax 850-2-381-2473 Phone 850-2-381-2473

Sunday we had power at the guest house for about two hours, making it difficult to relax in front of VCR/TV (or even read a book) or work on the procedures.

I informed the DPRK that Chris Miller will not be coming. They confirmed that they have received Winston Little's visa application, and are expecting George Jackson to arrive on 4/9/96 and John Newey to arrive on 4/13/96. Please fax me if Winston Little will be arriving in Pyongyang on 4/13/96 or 4/16/96. Mike Miles left for Pyongyang at noon today.

Water Treatment Bank B prefilters were changed by the DPRK. The filters read 300mr gamma, 3R beta/gamma. Those changing the filters received 10 mr. We have shut the WTS down to drain the Ultraviolet Water Treatment Unit and added a blowdown valve and isolation valve to the UV skid. This enables us to bypass the unit while blowing it down. The unit will drain/dry over night and the quartz tubes inspected/cleaned tomorrow. The WTS pump motor bearings were greased also.

Canning Procedure has been finished but awaiting Chief Engineer Li's comments. He seems concerned about the amount of data collection in our procedure. He may want a separate procedure just for data. We have not received any instrumentation from the IAEA. Neal Bonadies spent the afternoon familiarizing six DPRK workers and two interpreters.

NLB RLF TRG JMV JSP

CONFIRMED TO BE UNCLASSIFIED  
DOE OFFICE OF CLASSIFICATION HS-93  
T. Sieler DR DATE: 2/2/2009

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UNCLASSIFIED CONTROLLED  
NUCLEAR INFORMATION

U.S. spent fuel team (DOE) weekly summaries  
20080002437

04/08/96 06:45 202 588 2323  
96-04-07 15:27 PYONGYANG-KOREA

RA Libby  
812473

+++ V CAROTENUTO  
T-928 P.02

0003/004

NU51B

|   |          |   |   |   |   |   |   |
|---|----------|---|---|---|---|---|---|
| 1 | April 28 |   |   |   |   |   |   |
|   | T        | F | S | S | M | T | W |
|   | T        | F | S | S | M | T | W |
|   | T        | F | S | S | M | T | W |
|   | T        | F | S | S | M | T | W |
|   | T        | F | S | S | M | T | W |
|   | T        | F | S | S | M | T | W |

CLASSIFIED  
DECLASSIFICATION  
3/2/2009

NOT CONTAINING  
UNCLASSIFIED INFORMATION

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04/10/96 08:55 202 588 2323  
'96-04-10 07:42 PYONGYANG-KOREA

RA Libby  
812473

V CAROTENUTO 002/002  
T-939 P. 01

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M132

US SPENT FUEL TEAM, TUESDAY 4/9/96

Transferred to US Department of Energy 4/10/96 202 588 2323

04/12/96

15:57

202 586 2323

RA Libby  
PYUNGYANG KURTU

V CAKU...  
DOE - NN-42

D00013721

CHRON

W53

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TRANSFER FOR DIRECT REPLY - DOE

US SPENT FUEL TEAM, WEDNESDAY 4/10/96

To: Charlie Fitzgerald, US Department of Energy, NN-42 Fax 202-586-2323  
From: Thomas Grim, US Department of Energy Site Monitor Fax 850-2-381-2473

Daily Action Items

- Incorporate site comments into procedure

... data sheets into procedure

(complete)

We received the completed  
We are going to ask for some minor  
... in an impromptu trilateral meeting

Down 13722

4/12/96 06:39 202 586 2323  
'96-04-12 13:23 PYONGYANG-KOREA

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T-951 P.01

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CHRON

US SPENT FUEL TEAM, THURSDAY 4/11/96

71154

To: Cherie Fitzgerald, US Department of Energy, NN-42 Fax 202-586-2323  
From: Thomas Grim, US Department of Energy Site Monitor Fax 850-2-381-2473

Daily Action Items

- Incorporate DPRK data sheets into procedure (DPRK is correcting some minor spelling mistakes)
- Determine what IAEA information will be in the procedure. In the morning the DPRK ask us to devise a way to hold a reference rod and store rods that do not meet the IAEA criteria. We proposed a solution that is in line with the DPRK had-

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CHRON

US SPENT FUEL TEAM, FRIDAY 4/12/96

To: Cherie Fitzgerald, US Department of Energy, NN-42 Fax 202-586-2323

From: Thomas Grim, US Department of Energy Site Monitor Fax 850-2-381-2473

Daily Action Items

- Determine what IAEA information will be in the procedure for broken fuel rods. This morning we discussed the definition of a broken rod. It is a rod whose Uranium core is broken, not a rod missing its upper and/or lower Magnesium pieces. Chief Engineer Li said he expects less than 1% of the rods to be broken, but that he does not want to clean, weigh, or gamma scan broken rods. We told him that he needed to talk to the IAEA about this. Chief Engineer Li has mentioned that we might be asked to include some IAEA procedural steps in the NAC procedure. We are ready to do so, but the IAEA and DPRK must come to an agreement first. No agreement has been made on IAEA/DPRK data sheets.
- Continue familiarization of DPRK personnel with procedure and equipment. Yesterday and today DPRK personnel did not show up for morning classes until after 10:30 AM. They then took a three hour lunch. They continually ask Neal Bonadies for a break. They are not familiar with the vigorous effort needed to complete canning. No one is pushing them. Yesterday I mentioned to Chief Engineer Li the need for more trainees. He says he is thinking about it.
- Clean three fuel baskets. (two complete and moved to canning stations)

DOES NOT CONTAIN  
UNCLASSIFIED CONTROLLED  
NUCLEAR INFORMATION

04/15/96

08:55

202 586 2323

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V CAROTENUTO

002/002

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TRANSFER FOR DIRECT REPLY - DOE

CHRON

US SPENT FUEL TEAM, SATURDAY APRIL 13, 1996

TO: Cherie Fitzgerald, US Department of Energy, NN-42 Fax: (202) 586-2323  
FROM: Jim Viebrock, NAC Site Representative Fax: 850-2-381-2473

TRAINING OF THE DPRK PERSONNEL CONTINUED WITH FUEL BASKET PRESSURE WASHING. DURING THIS WASHING OPERATION, POOL CLARITY DETERIORATED RATHER QUICKLY. HOWEVER, CLEANING THE FOURTH BASKET WAS COMPLETED WAS PREPARED FOR TRANSFER BACK TO STATION #1.

DURING PREPARATIONS FOR TRANSFERRING THE FOURTH BASKET BACK TO STATION #1, IT WAS DISCOVERED THAT TWO RODS FELL OUT OF THE BOTTOM OF THE BASKET WHEN THE BASKET WAS PLACED ON THE DIVIDER WALL DURING THE INITIAL MOVEMENT OF THE BASKET FROM STATION #1 TO THE BASKET CLEANING STATION. A DECISION WAS MADE BY THE DPRK TO KEEP THE CLEANED BASKET IN BASKET CLEANING STATION UNTIL THE RODS COULD BE COUNTED AND THE NUMBERS VERIFIED. AN IAEA INSPECTOR WITNESSED THIS OCCURRENCE.

FIVE TRUCKS ARRIVED FROM PYONGYANG EARLY THIS AFTERNOON. ALL 38 BOXES HAVE ARRIVED AT THE SITE. THE TRUCK CRANE ARRIVED SOON AFTER AND STARTED UNLOADING THE BOXES. DUE TO PROBLEMS WITH TRUCK CRANE, ONLY TWO BOXES WERE UNLOADED. MR. LI INDICATED THAT THESE BOXES WOULD BE UNLOADED DURING THIS WEEKEND.

REGARDS



04/17/96 06:32 202 586 2323  
'96-04-17 19:58 PYONGYANG-KOREA

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--- V CAROTENUTO

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TRANSFER FOR DIRECT REPLY - DOE

US SPENT FUEL TEAM

CHRON

TO: CHERIE FITZGERALD, US DOE NN-42  
202 586 8525, FAX 202 586 2323  
FROM: WINSTON LITTLE, DOE ONSITE MONITOR  
850 2 381 4423, FAX 850 2 381 2473  
DATE: WEDNESDAY, APRIL 17, 1996

I arrived at Yongbyon at noon today. Currently, there are 6  
US citizens at the site: Jim Viehbrock, Jeff Pone, George Jackson.

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## US SPENT FUEL TEAM

TO: CHERIE FITZGERALD, US DOE NN-42  
202 586 8525, FAX 202 586 2323  
FROM: WINSTON LITTLE, DOE ONSITE MONITOR  
850 2 381 4423, FAX 850 2 381 2473  
DATE: THURSDAY, APRIL 18, 1996

9/15/98  
CHRON

Spent  
fuel

Much of the morning was spent unloading boxes from the latest air shipment--the task was completed. Additional training sessions were held for DPRK personnel. The sessions appeared to go well--7 attendees--and DPRK is confident that they can operate the stations.

Basket #173 was moved from the waterjet cleaning station to Work Station #1. While handling Basket #173 on 4/13/96, two rods fell out--they have not been replaced. Each work station now contains a fuel basket that has been cleaned by the waterjet.

Jim completed the procedure for handling broken rods, and gave a copy to DPRK for evaluation.

In the morning meeting with Engineer Li, we discussed the number of required canisters for abnormal rods. It was agreed that a separate canister holder attached to the rack nearest the work stations will be constructed. The holder will contain:

- 1) Canister for broken rods,
- 2) Canister for stainless steel and graphite rods,
- 3) Canister for questionable rods (i.e., rods that fail IAEA test, but are not clearly steel or graphite rods).

After due consideration and measurements, Jim thinks that we may be able to get by with just two jib cranes, each serving two stations. The cranes are large, and could take days to install.

DPRK personnel switched the purification line pre-filters from Bank A to Bank B, permitting the flow to increase to 51 gpm. We told Engineer Li that we wished to start Chiller B when the temperature reached 55 F (now 54 F). He protested that Tom Grim had previously told him 60 F. Tom had told me he agreed to 55 F.

When the following 3 tasks are completed, we should begin canning rods: 1) DPRK approval of broken rod procedure, 2) IAEA rod weighing apparatus approved, installed, and calibrated, and 3) installation of canister holders for abnormal rods. We estimate that the above tasks should be completed in one week, although the second item has the potential for causing considerable delay.

CONFIRMED TO BE UNCLASSIFIED

DOE OFFICE OF CLASSIFICATION 45-13  
T. Sieler DR DATE: 2/2/2019

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NUCLEAR INFORMATION

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04/24/96

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\*\*\* V. CAROTENUTO

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04/29/96 07:38

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+++ V CAROTENUTO

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TRANSFER FOR DIRECT REPLY - DOE

US SPENT FUEL TEAM

M163  
CHRON

TO: CHERIE FITZGERALD, US DOE NN-42  
202 586 8525, FAX 202 586 2323  
FROM: WINSTON LITTLE, DOE ONSITE MONITOR  
850 2 381 4423, FAX 850 2 381 2473  
DATE: SATURDAY. APRIL 27. 1996

04/28/96

07:38

202 586 2323

RA Libby

+++ V CAROTENUTO

004/004

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04/29/98 07:37 202 586 2323

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TRANSFERRED TO OTHER AGENCY  
TRANSFER FOR DIRECT REPLY - DOE

**US Spent Fuel Team Daily Fax****Monday, April 29, 1996**

TO: CHERIE FITZGERALD, US DOE NN-421 202 586 2323

FROM: KEN AMES, DOE SITE MONITOR 850 2 381 2473

**Daily Action Item List**

- Remove blockage in debris suction line. → A kink in the hose was removed and flow achieved, but the flow still cuts off periodically for a few seconds and then restarts. It was found that the strainer is acting as a gas separator and we are getting periodic vapor lock. We don't believe it will damage the pump or prevent satisfactory cleaning.
- Work station #4
  - Remove rods from basket #105 and clean.
  - After measurement, place cans in gridded canister 71 or open canister 0-1.  
→ Today Dixon Parker and several Korean workers were trained on grappling, cleaning and loading. Consequently, progress was not as rapid as it could have been. In addition, there were communication and procedural problems that need to be resolved. At the end of the day, one rod position was still unfilled due to a bent rod.
  - When gridded canister is full, install lid, move to overpack, and begin conditioning.  
→ In the workstation checkout, it was discovered that someone had turned the argon pressure much too high while the team was absent and exposed a 30 psi gauge to about 1600 psi, breaking it. Fortunately, the gauge did not explode or leak, but it had to be replaced from our small stock of spare pressure gauges. Unauthorized and incorrect operation of equipment continues to be a serious problem. Since loading took so long, conditioning was not started today.
- Work station #2 → We had planned to begin canning rods at work station #2, but the delays with work station #4 prevented this.

Stephanie Eshelman, Mike Miles, Dixon Parker, Butch Hamilton and I arrived safely at the guest house yesterday. Winston Little left for Pyongyang Sunday mid-afternoon. The IAEA has claimed four of the guest rooms so Mike and Dixon are sharing a room. This morning there was ample hot water and the lights were on. There were no interruptions in power at the site.

I had an enjoyable visit with Ken Yates and Denis Reynolds on my trip in. They have stopped receiving the daily faxes and would like to be back on distribution.